Seasonal Pools in the Mid-Atlantic Region: Building a Framework for Conservation

Ronald Landy
Regional Scientist
U.S. EPA Region III
(410) 305-2757
landy.ronald@epa.gov

Authors: Lesley Brown[1], Robin Jung[2], Tina Schneider[3], Ronald Landy[4,6], Wayne Davis[5], Patricia Bradley[6]
[1]PerotSystems Government Services, contractor for Mid-Atlantic Integrated Assessment Program (MAIA)
[2]U.S. Geological Survey (USGS)
[3]Maryland–National Capital Park & Planning Commission (M-NCPPC)
[4]U.S. EPA Region III
[5]U.S. EPA Office of Environmental Information
[6]U.S. EPA Office of Research and Development

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Seasonal pools support enormous biological diversity by providing breeding, nursery, and feeding grounds to wildlife, including species that are rare, threatened, or endangered in the Mid-Atlantic region. Also known as vernal pools, spring ponds, and temporary ponds, these unique pools fill with rainwater, surface runoff, snowmelt, or groundwater in the fall, winter, or spring and may completely dry out by the summer. Seasonal pools' periodic dry-downs exclude predatory fish; thus, species of amphibians and invertebrates exclusively depend upon these pools.

The same qualities that make seasonal pools uniquely valuable to wildlife render them especially vulnerable to human disturbance: their small size, isolation, and impermanent waters. There exists no information as to the number and distribution of seasonal pools in the Mid-Atlantic region, and they generally do not receive protection from state or federal regulations. Another major barrier to the effective management of seasonal pools is a general lack of awareness regarding the importance of seasonal pools to biodiversity support.

The Mid-Atlantic Integrated Assessment Program (MAIA) of the U.S. Environmental Protection Agency (U.S. EPA) is collaborating with the USGS to overcome these obstacles to seasonal pool conservation. Their efforts entail disseminating knowledge on seasonal pool ecology and establishing a scientific and management dialogue. In the fall of 2004, the U.S. EPA (MAIA, Region III, and Office of Science Policy), M-NCPPC, and the United States Department of Agriculture Forest Service sponsored a workshop to design and build a constructed seasonal pool. The workshop initiated an exchange of ideas and opened channels of communication between professionals from a wide variety of backgrounds (including local and state government, federal agencies, nongovernmental organizations, and private firms). Another major project is a manual titled "An Introduction to Mid-Atlantic Seasonal Pools" to be published by the U.S. EPA in summer 2005. This publication is the first work of its kind for the Mid-Atlantic

region. The manual includes comprehensive scientific knowledge on seasonal pools in the Mid-Atlantic context and a field guide to seasonal pool animals. In addition, the manual provides practical information to aid in surveys and monitoring of seasonal pools.